Joint Requirements Office for Chemical, Biological, Radiological, and Nuclear Defense

USMC 04 NBCD Conference

16 March 2004

Mr. Robert Chapman

Agenda

- **JRO - Overview**
- **JRO – recent efforts**
- **The Way Ahead**

JRO – CBRN Defense Charter

- **Single office within DOD responsible for the planning, coordination, and oversight of joint CBRN defense operational requirements**
  - **Develop and maintain the CBRN defense Overarching Operational Concept and the CBRND Modernization Plan**
  - **Represent the Services and Combatant Commanders in the capabilities generation process and act as their proponent for coordinating and integrating CBRND operational capabilities for materiel and non-materiel solutions**
  - **Develop DOD CBD POM with acquisition community support**
  - **Facilitate the development of joint doctrine and training and sponsor the development of multi-service doctrine**
- **Serve as the CJCS' single source of expertise to address all issues involving CBRN defense within passive defense, consequence management, force protection, and homeland security**

JRO-CBRN Defense Current Organization

35 Total Man-years
23 DOD & 12 Contractor

Director
ADM Michael Mathis

Tech Director (SES) -- Mr. Leonard Izzo

Deputy Director – COL Brian S. Lindan

Analysis and Demonstration Br

- Develop operational concepts and support rqmts analysis studies
- Participate in experiments and demos, ACTDs, and support DOD studies
- JS mod & sim POC
- Coordinate threat capability assessments, coordinate with intel community
- Coordinate on S&T efforts, facilitate O-49 effort, coordinate

Mission Area Integration Br

- Develop Mod Plan, Operational Capabilities, and Priorities
- ICW JPEO lead POM efforts, develop Strat Plan
- Coordinate response to external studies (GAO, DSB, DOD IG, etc)
- Coordinate on HLS and NORTHCOM
- Coordinate AT/FP and CoM offices on CBRND issues
- Resource analysis (to include coordination with JPEO

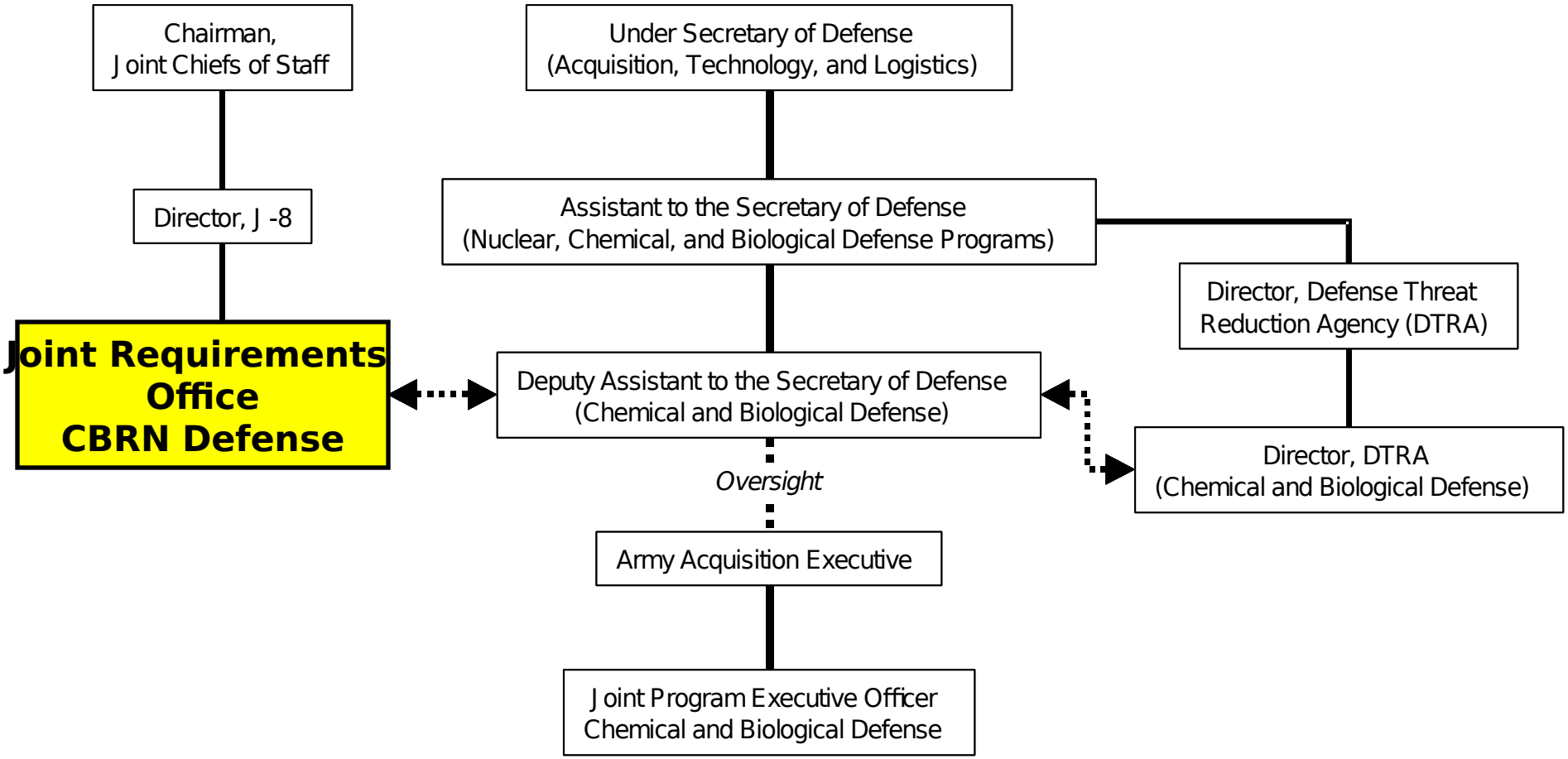
Materiel Rqmts Coord Br

- Develop CBRND rqmnts in passive defense, CoM, AT/FP, and HLS
- Manage ORDs as JROC Special Interest programs
- Service identifies needs, JRO staff facilitates development and coordination; Services validate ORDs
- Interface with PMs, T&E agencies, and Service requirements offices as required

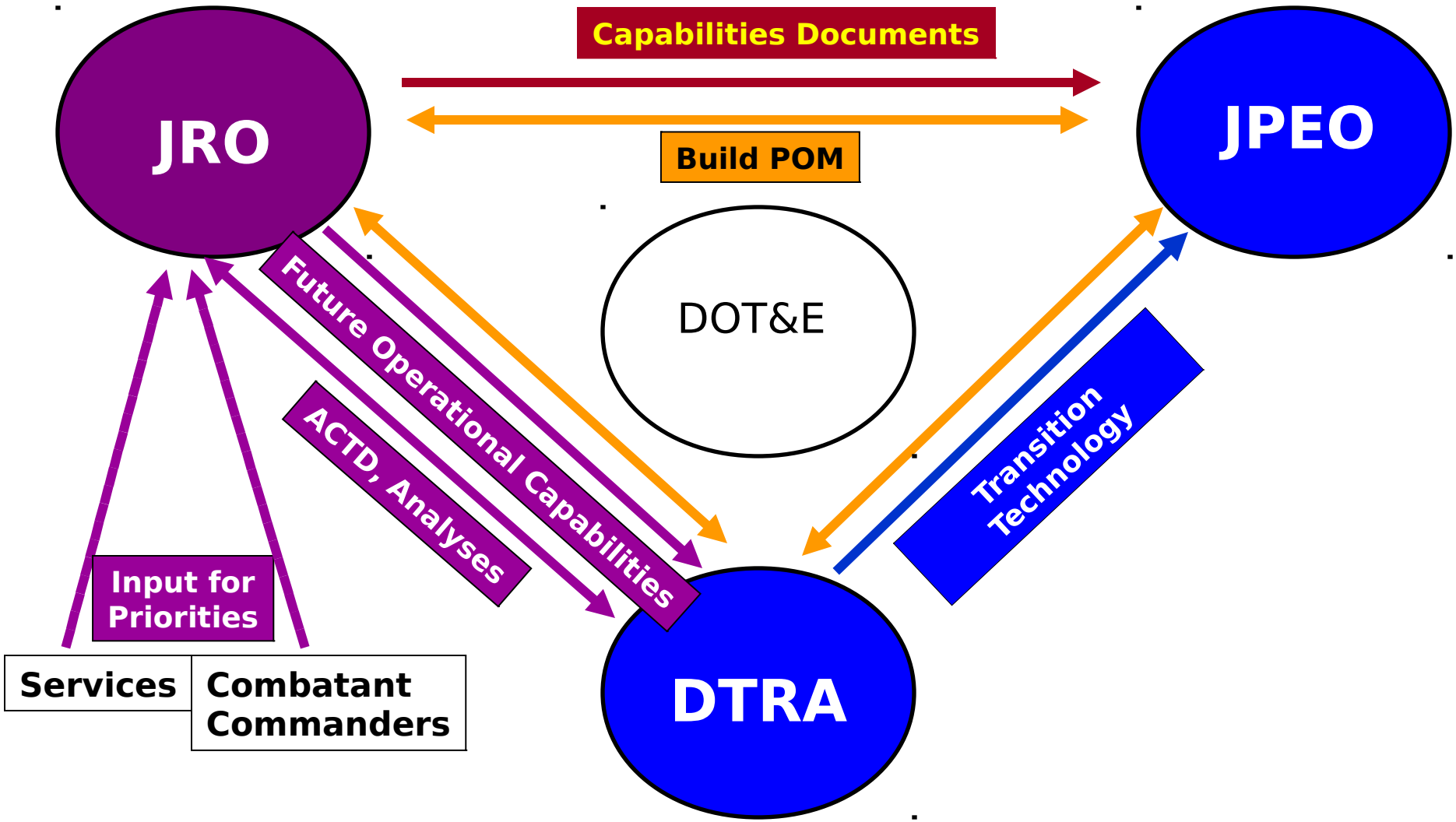
Doctrine, Tng, and Readiness Br

- Coordinate logistics and sustainment issues,, participate in DOD CBRND operational readiness issues, monitor LD/HD CBRN assets
- Coordinate non-medical multi-service doctrine and training issues w/USACMLS and Service doctrine centers
- Coordinate medical multi-service doctrine and training issues

CBDP Management & Oversight Structure



Required Capabilities, S&T, and Acquisition



Materiel Requirements

- **New Joint Capabilities Integration and Development Syste**
  - **CJCSM 3170.01 and CJCSI 3170.01C, 24 Jun 03**
  - **Drive “jointness” from the top-down, strengthening joint warfighting capabilities**
  - **Links strategic direction to strategic investment decision making and acquisition policy**
  - **Enables a more responsive acquisition system**
  - **Provides an engine for force transformation**
  - **Integrates material and non-material solutions to capability gaps and shortfalls**
  - **Frames discussions of alternatives using common language of metrics**

Training and Doctrine

- **Training & Education**
  - **Combatant Command Support**
    - **Joint Staff Officer NBCD Familiarization Course**
    - **Exercise Support (4 Phases of JTS, Red Team Training)**
    - **CBRN Defense Senior Leader Seminars**
  - **Professional Military Education Support**
    - **Curriculum Assistance and Development**
    - **Faculty Training & Guest Speaker Program**
    - **War game Support**
- **Doctrine**
  - **CBRND MTTP Program**
    - **11 Non-Medical & 4 Medical Manuals**
  - **Act as the Joint Staff sponsor to support the development of joint CBRN defense doctrine and MTTP**
  - **Joint Doctrine Reviews**
  - **RESTOPS Transition IPT CONOPS/TTP WG**

ACTD Support

- **Restoration of Operations (RestOps)**
  - **Purpose – Mitigate fixed site CB vulnerability, restore critical operations to minimize impact on the war fight (FY01-05)**
  - **Sponsor – US Pacific Command (PACOM)**
  - **Final Demo – Feb 03, Osan Air Force Base, Korea; Residual and Transition Phase – Apr 03-Apr 05**
  - **Transition Integrated Process Team (IPT) Co-chairs – Joint Requirements Office (JRO) and US Air Force**
- **Contamination Avoidance at Sea Ports of Debarkation (CASPOD)**
  - **Purpose – Mitigate SPOD CB or toxic industrial material (TIM) vulnerability, minimize impact on force flow and operational tempo during the initial stages of power projection (FY02-06)**
  - **Sponsor – US Central Command (CENTCOM)**
  - **Prelim Demo – Aug/Sep 03, Naval Weapons Station Charleston, SC; Final Demo – Sep 04, TBD**
  - **Transition IPT Chair – Joint Program Executive Office (JPEO-CBD), with JRO support**

Planned ACTD Support

- **CBRN Unmanned Ground Reconnaissance (CUGR)**
- **FY05 ACTD candidate**
- **Objectives:**
  - **Provide an advanced sensor suite for near real time CBRN detection, sampling, and identification for manned and unmanned platforms.**
  - **Introduce surface contamination detection technologies into manned recon vehicles to detect CWAs, TICs/TIMs, and NTAs.**
  - **Provide unmanned CBRN detection capabilities to recon urban terrain.**

Studies & Analyses

- **Front End Analysis (FEA) of Joint CBRN Defense Concept Experimentation**
  - **Develop a strategy for the CBRN Defense enabling concept**
- **CBRN Defense Medical Training and Doctrine Analysis**
  - **Analyze gaps, redundancies, inconsistencies**
- **CBRN Functional Area Analysis (FAA), Functional Needs Analysis (FNA) and Functional Solution Analysis (FSA)**
  - **Analysis to transition from “requirements” to “capabilities”**
- **Challenge Levels of Chemical and Biological Agents**
  - **Evaluate the threat agent levels in time, space, and quantity**
- **CBR Sensor Mix and Distribution**
  - **Examine optimum sensor mix across a set of vignettes**
- **Biological Operations Assessment**
  - **Develop detailed tabletop exercises to examine responses**

Supporting Combatant Commands and Services

- **Materiel and Non-Materiel Solutions**
  - **Validation of ONS**
  - **Training & Doctrine**
  - **Exercises**
  - **Lessons Learned Library**
- **Enhanced Information Exchange**
  - **Web-based interactive info sharing**
  - **Designated POCs in JRO**
  - **Conferences / working teams**

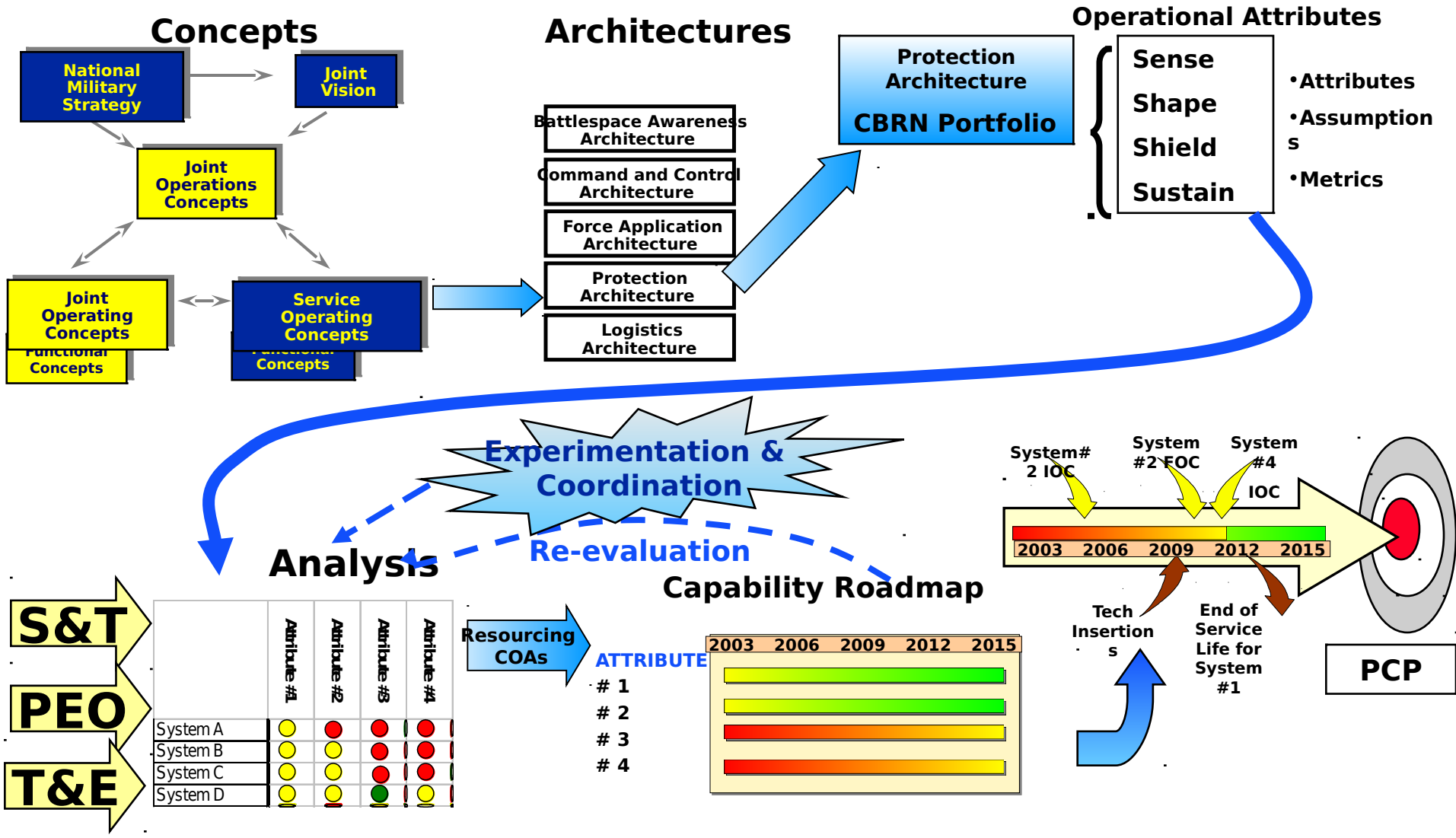
We serve the Combatant Commands and Services as their advocate in CBRN Defense issues.

Recent Activities

- **Baseline Capabilities Assessment**
- **JROC Approval of 4S Concept:**

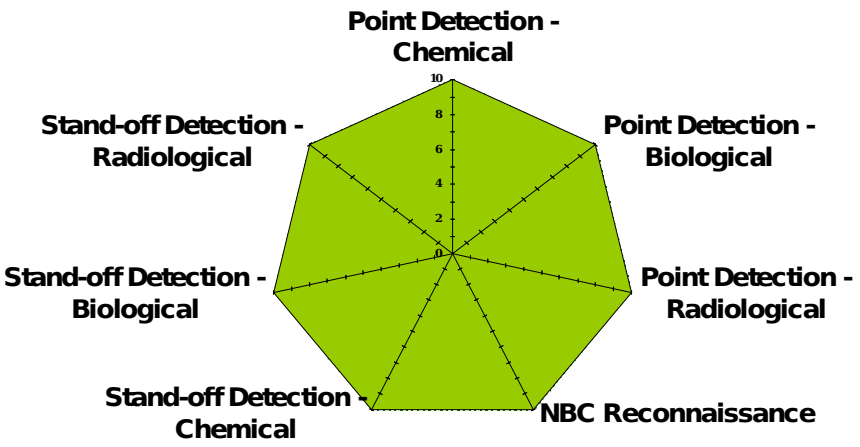
  Sense, Shape, Shield, and Sustain
- **Installation Protection**
- **CbtWMD Enhanced Planning Process**

Baseline Assessment Methodology

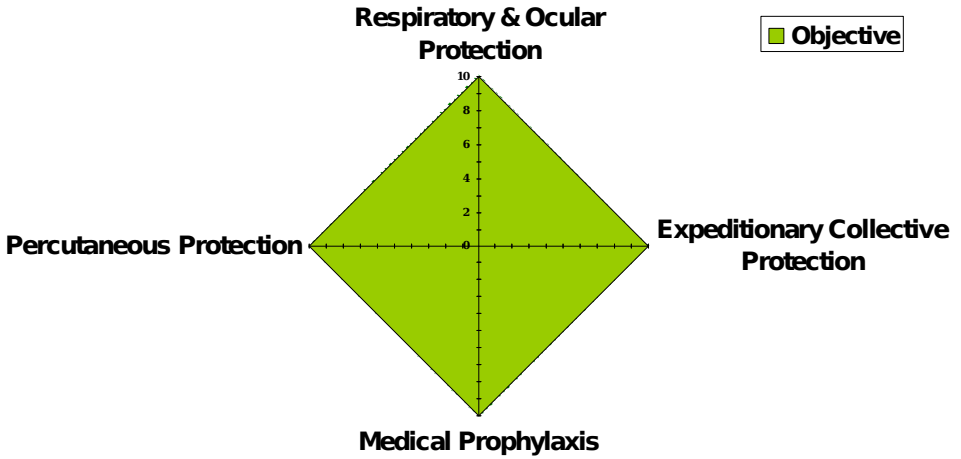


Baseline Capabilities Assessment

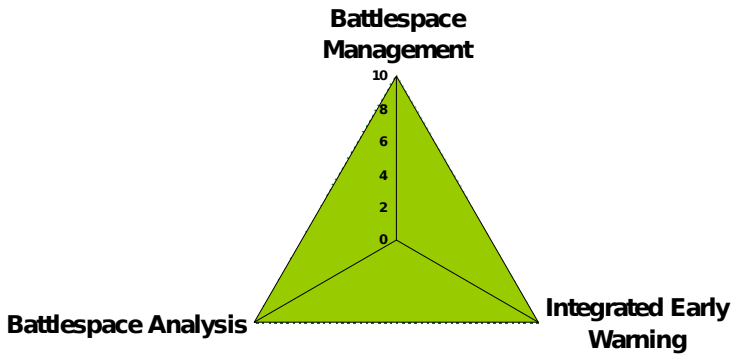
SENSE



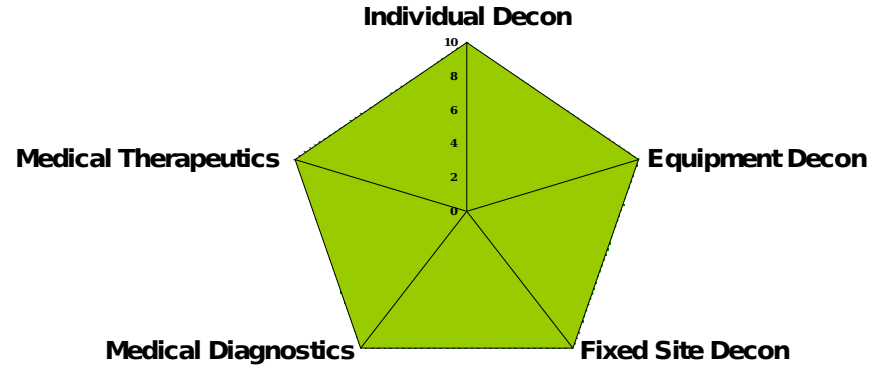
SHIELD



SHAPE



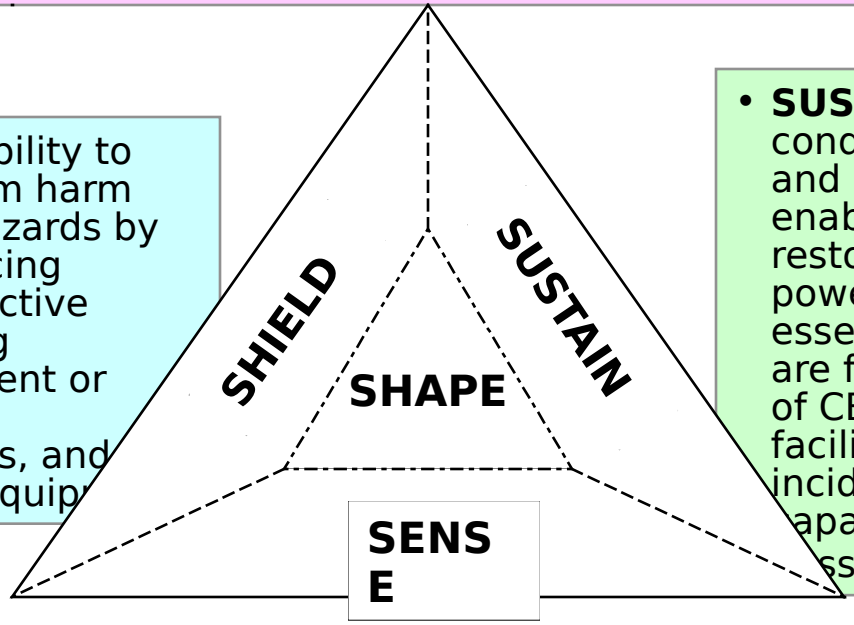
SUSTAIN



Joint CBRN Defense Functional Concept – Operational Attributes

- **SHAPE –** Provides the ability to characterize the CBRN hazard to the force commander - develop a clear understanding of the current and predicted CBRN situation; collect, query, and assimilate info from sensors, intelligence, medical, etc., in near real time to inform personnel, provide actual and potential impacts of CBRN hazards; envision critical SENSE, SHIELD and SUSTAIN end states (preparation for operations); visualize the sequence of events that moves the force from its current state to those end states.

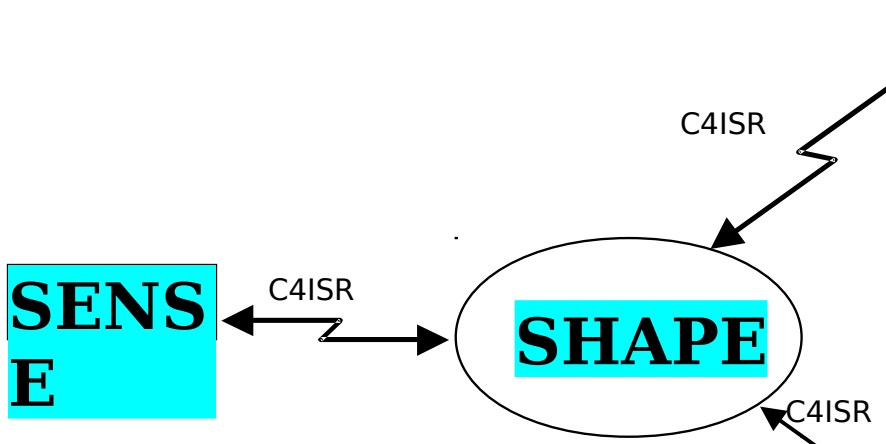
- **SHIELD –**The capability to shield the force from harm caused by CBRN hazards by preventing or reducing individual and collective exposures, applying prophylaxis to prevent or mitigate negative physiological effects, and protecting critical equip



- **SUSTAIN –** The ability to conduct decontamination and medical actions that enable the quick restoration of combat power, maintain/recover essential functions that are free from the effects of CBRN hazards, and facilitate the return to pre-incident operational apability as soon as ssible.

- **SENSE –** The capability to continually provide the information about the CBRN situation at a time and place by detecting, identifying, and quantifying CBRN hazards in air, water, on land, on personnel, equipment or facilities. This capability includes detecting, identifying, and quantifying those CBRN hazards in all physical states (solid, liquid, gas).

CBRN Operational Framework for Warfighting



•Chemical Stand-off Detection
•Biological Stand-off Detection
•Radiological Stand-off Detection
•NBC Reconnaissance
•Chemical Point Detection

•Biological Point Detection

•Radiological Point Detection

•Medical Surveillance
•Battle Management Systems
•Integrated Early Warning
•Battle Analysis
•Mod & Sim Tng

•Percutaneous Protection

•Respiratory & Ocular Protection
•Human Factors & Interfaces
•Biological Prophylaxis
•Chemical Prophylaxis
•Radiological Prophylaxis

•Mobile Collective Protection
•Transportable Collective Protection
•Fixed Site Collective Protection

•Individual Decontamination
•Equipment Decontamination
•Sensitive Equipment Decon
•Fixed Site Decontamination
•Medical Diagnosis
•Medical Therapeutics - Chemical
•Medical Therapeutics - Biological
•Medical Therapeutics - Radiological

Installation Protection

- **Developed a priority list of 200 installations to receive CB protection**
- **Developed a "DoD Concepts of Operation for CBRNE Defense Supporting US Military Installations and Facility Preparedness"**
  - **Establishes a single foundation for Services, COCOMs, and DoD agencies to tailor their CONOPS**
- **Developed "Standards for US Military Installations and Facility CBRNE Defense" as directed by DEPSECDEF**
  - **Leverages CBRN Defense standards with current DoD AT standards**
- **Developed ONS to implement the CB Installation Force Protection Program (Guardian)**

Internal Initiatives

- **Improving communication with Services and COCOMs**
- **Integration of US Coast Guard**
- **Expanding the Counter proliferation portfolio to include other aspects of the national strategy:**
  - **Active defense**
  - **Proliferation Security Initiative**
  - **Consequence management**
- **Focus S&T on prioritized capabilities gaps**
- **Joint Experimentation Program**
- **Department of Homeland Security**

Combating Weapons of Mass Destruction (CbtWMD) EPP

- **11 Sep 03, Joint CBRND Baseline Capabilities Assessment – JROC approved a list of 39 prioritized CBRND capability gaps**
- **1 Dec 03, CJCS "Assessment of CBRN Preparedness for DOD Forces Worldwide" – identifies minimal or inadequate capabilities in COCOM CBRN Readiness**
- **Counter proliferation against WMD is high on SECDEF List of legislative spending priorities**
- **CbtWMD constitutes 20-30% of new SPG programmatic Guidance**
  - **Chem-Bio Defense Program (CBDP); 0 - $3.5B**
  - **WMD Infrastructure Recapitalization; 0 - $1.5B**
  - **New WMD Interdiction and WMD Elimination Operational Measures; ~$250M**

CbtWMD EPP Summary

- **Requires the support of multiple organizations**
- **Senior level fast track effort**
  - **Unity of effort is key**
  - **Leverage work from existing efforts where applicable**
- **Results will have major programmatic impact through the JPG**
- **EPP participation:**
  - **DTRA, DARPA, JPEO, PAIO, JRO-CBRND, OSD (AT&L, PA&E, P), DUSA (OR), Services, COCOMs**

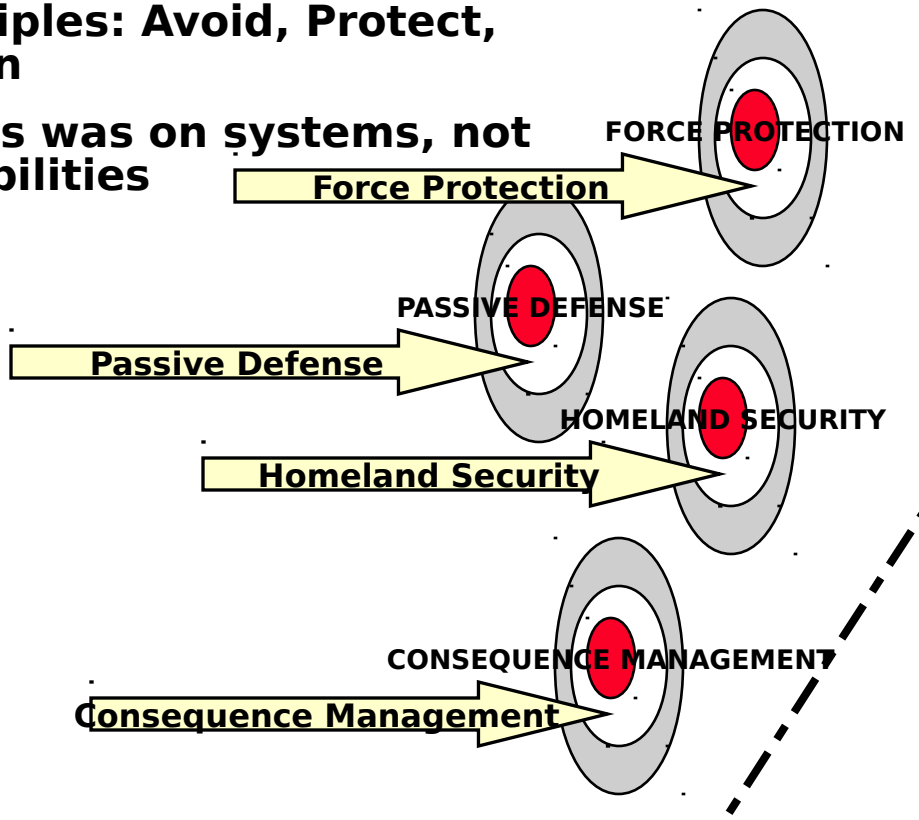
Purpose of the EPP is to provide SECDEF with Joint capability-based analyses of programmatic alternatives

JRO Way-Ahead

PAST

Four Programs – Not One:

- **Lack an integrated concept**
- **Program centered around principles: Avoid, Protect, Decon**
- **Focus was on systems, not capabilities**



OBJECTIVE

One program